

REDUCED COMPONENT POWER CONVERTER WITH INDEPENDENT  
REGULATED OUTPUTS AND METHOD

Abstract of the Disclosure

5

A DC to DC switching power converter includes a shared set of high-side switching elements which may be operated at approximately a duty cycle approaching 50%, and one or more sets of low-side switching elements which may be operated at a lower duty cycle. The sets of low-side switching elements may be 10 turned off early in response to a control signal to regulate a particular output. Steering diodes are included to inhibit current from flowing between the various low-side stages when turned off at different times. Freewheeling diodes reduce the need for snubber circuitry. The control signals may be isolated by high-speed optical couplers.

15